REMARKS

SUMMARY

Claims 1-38 are pending in the application. Claims 1-8 and 20-27 are subject to examination and claims 9-19 and 28-38 have been withdrawn from examination. Claims 1-8 and 20-27 were rejected in the above-identified Office Action. Claims 1, 5-7, and 24-26 have been amended.

Applicant appreciatively acknowledges the Examiner's consideration and acceptance of the drawings filed on January 10, 2002 and the information disclosure statements (IDS) submitted on March 14, 2002 and May 5, 2003.

ELECTION/RESTRICTIONS

Applicant further acknowledges the Examiner's restriction of the invention in the first paragraph of "Election/Restrictions"on page 2 and confirms the election of claims 1-8 and 20-27 previously made in the reply filed September 17, 2004. However, the applicant respectfully maintains the right to rejoinder under MPEP §809.02(c) for the non-elected claims should allowable claims be found in the instant application.

CLAIM OBJECTIONS

In the penultimate paragraph on page 2 under "Claim Objections" of the above-identified Office Action, the Examiner objected to claim 5 because of an informality. The Examiner's suggested correction has been made.

In the last paragraph on page 2 under "Claim Objections" of the above-identified Office Action, the Examiner objected to claims 6 and 25 because of an allegedly redundant limitation. The Examiner's suggested correction has been made. It should be noted that both claim 6 and claim 25 included the limitation as a positional indicator of an order of execution in an effort to clarify for the Examiner the operation of the one or more JOIN clauses relative to the newly introduced limitations.

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No new matter is believed to be introduced by the amendments to claims 5, 6, and 25.

CLAIM REJECTIONS UNDER 35 U.S.C. § 101

In "Claim Rejections – 35 USC § 101" on page 3 of the above-identified Office Action, claim 1 has been rejected as being directed to non-statutory subject matter. The Examiner's suggested correction has been made.

No new matter is believed to be introduced by the amendment to claim 1.

CLAIM REJECTIONS UNDER 35 U.S.C. § 112

In "Claim Rejections – 35 USC § 112" on page 5 of the above-identified Office Action, claims 1, 7, 20, and 26 have been rejected as being indefinite under 35 U.S.C. § 112, second paragraph. The Examiner's suggested correction has been made with respect to claims 7 and 26.

More specifically, the Examiner states that claims 1 and 20 recite the limitation, "grouped non-looked-up table fields" and "aggregated table fields" in the step of generating a SQL statement, which allegedly requires antecedent basis. Applicant respectfully traverses the rejection as the first instance of a plural limitation forms its own antecedent basis.

Regarding claims 7 and 26, the above-identified Office Action states that the limitation "said aggregation function" lacks antecedent basis. Accordingly, the Examiner's suggested corrections have been made.

Support for these changes may be found, among other places, on page 12, line 19 and page 15, lines 4, 24, and 25 of the specification of the instant application. Additional support may be found in the figures and in claims 1 and 20. As a result, no new matter is believed to be introduced by the amendments to claims 7 and 26.

It is accordingly believed that the claims meet the requirements of 35 U.S.C. § 112, second paragraph. The above-noted changes to the claims are provided solely for clarification or cosmetic reasons. The changes are neither provided for overcoming the prior art nor do they narrow the scope of the claim for any reason related to the statutory requirements for a patent.

CLAIM REJECTIONS UNDER 35 U.S.C. § 102

In "Claim Rejections – 35 USC § 102" on page 6 of the above-identified Office Action, claims 1-4, 8, 20-23, and 27 have been rejected as being fully anticipated by U.S. Patent No. 6,748,374 to *Mandan, et al.* (hereinafter **MANDAN**) under 35 U.S.C. § 102(e). For the Examiner's future reference, applicant notes the apparent clerical error in the above-identified office action identifying **MANDAN** as U.S. Patent No. 6,748,378. Applicant respectfully traverses the rejection.

Before discussing **MANDAN** in detail, it is believed that a brief review of the invention, as claimed, would be helpful. Claim 1 calls for, *inter alia*, a method including:

parsing on a computing system a data processing statement;

identifying on a computing system table field or fields **including whether an aggregation operation is to be performed on row values of each of the identified table fields;**

for each identified table field, determining on a computing system whether the table field is a looked-up field;

identifying on a computing system **a basis table** of which non-looked up ones of said identified table field or fields are members;

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identifying on a computing system **one or more target tables** from which said looked-up one or ones of said identified table field or fields are to be looked up; and

generating on a computing system a SQL statement, including with said generated SQL statement **a FROM clause** having a subquery **creating** a grouped derivative table comprising grouped non-looked-up table fields and aggregated table fields, and **one or more JOIN clauses** joining the corresponding one or more target tables to the grouped derivative table, **if the data processing statement is determined to contain first one or more table fields to have aggregation operations performed on their row values**.

Claim 20 includes similar language directed to an apparatus with one or more processors coupled to a storage medium having programming instructions stored thereon for execution by the one or more processors.

APPLICABILITY OF MANDAN

To anticipate the instant application **MANDAN** must teach EVERY element of the claim as indicated in MPEP 2131, specifically "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). In fact MPEP 2131 clarifies that not only must the claim be expressly or inherently described, but adds that **"The identical invention** must be shown **in as complete detail as is contained in the ... claim."** *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)(emphasis added).

The **MANDAN** reference discloses a "method for generating a relational database query statement **using one or more templates** corresponding to search conditions **in an expression tree**" (emphasis added). **MANDAN** is specifically "directed to ... generate a

SQL statement **for an LDAP search filter**" (emphasis added). Therefore, notwithstanding the passage from the Abstract cited by the Examiner, it is clear that **MANDAN** merely teaches "the generation of a database query language statement to query or manipulate directory information objects in a relational database." See e.g. col. 4, Lines 33-40 of **MANDAN**. The disclosures of **MANDAN** should therefore be limited to **query statements for directory information objects.**

In contrast to the one or more templates used in **MANDAN**, applicant respectfully submits that "generating on a computing system a SQL statement" in the present application is dynamically created to include "**a FROM clause** having a subquery **creating** a grouped derivative table" as recited in claims 1 and 20 of the instant application. Thus, the instant application is "creating" a grouped derivative table while **MANDAN** is "using" **one or more templates.**

Additionally, "parsing" as interpreted in the above-identified Office Action is directed towards generating an expression tree, as illustrated in Fig. 14A of **MANDAN**. Whereas, the specification of the instant application clearly indicates on page 11, line 12 that the generator 106 illustrated in Fig. 3 of the present invention "parses the input statement, e.g. to tokenize the elements in the input statement." Clearly, parsing "to tokenize the elements" as required under the present invention does not necessarily require generating an expression tree, which is necessary in the directory operations of **MANDAN**. This parsing distinction provides further clarification that the focus of **MANDAN** is on directory operations using one or more previously defined templates. As such, there is no opportunity to use the "tokens" to generate a SQL statement including a FROM clause and at least one JOIN clause "if the data processing statement is determined to contain first one or more table fields to have aggregation operations performed on their row values" as recited in claim 1 and claim 20 of the instant application.

The penultimate paragraph on page 8, and the discussion pages 10 and 11 of the Office Action appears to improperly equate the use of UNION in **MANDAN** with "JOIN"

clauses as recited in claims 1 and 20 of the instant application. As indicated by its name, a UNION command is used to select related information from two tables, much like the JOIN command. However, these commands are distinct and are defined to have different meanings. For example, in SQL when using the UNION command **only distinct values are selected** and **all selected columns need to be of the same data type**.

In contrast, the instant application requires that the "generated SQL statement" include "one or more JOIN clauses joining the corresponding one or more target tables to the grouped derivative table" as recited in claim 1 and claim 20 of the instant application. Thus, in the instant application, each . The subtree condition of **MANDAN** merely provides the SQL equivalent of "|" or "&" as the conjunction marker, whereas the "one or more JOIN clauses" of the instant application are included when the conditional statement "if the data processing statement is determined to contain first one or more table fields to have aggregation operations performed on their row values" is satisfied as recited in claims 1 and 20.

Clearly, **MANDAN** does not show "generating a SQL statement" including "**creating a grouped derivative table**" as recited in claim 1 and claim 20 of the instant application. Nor does **MANDAN** teach or suggest the use of "**one or more JOIN clauses**" including the corresponding one or more target tables to the **created** grouped derivative table as recited in claim 1 and claim 20 of the instant application. Moreover, as the pertinate portions of **MANDAN**, are primarily directed to the creation of an expression tree upon which preexisting templates may be applied, "parsing on a computing system a data processing statement" as recited in claim 1 and claim 20 of the instant application is also not expressly or inherently described "**in as complete detail as is contained in the ... claim**" as required by MPEP 2131.

In view of the foregoing, the Examiner is requested to immediately withdraw the rejections under 35 U.S.C. § 102 on page 6 of the above-identified Office Action and issue a Notice of Allowance where appropriate.

Claim Rejections under 35 U.S.C. § 103

In "Claim Rejections – 35 USC § 103" on page 12 of the above-identified Office Action, claims 5, 7, 24, and 26 have been rejected under 35 U.S.C. § 103(a) as being obvious over **MANDAN** in view of the third edition of the book entitled "Database System Concepts" authored by *Silberschatz, et al.* (hereinafter **SILBERSCHATZ**). For at least the reasons previously provided, applicants traverse.

More specifically, it is believed that claims 5, 7, 24 and 26 are patentable over the cited art in their curerently amended form for at least the reasons explained above and, therefore, the claims have not been amended to overcome the references.

As described in MPEP 2142, to establish a *prima facie* case of obviousness over the instant application, three basic criteria must be met by the proposed combination of **MANDAN** and **SILBERSCHATZ**. First, there must be some suggestion or motivation, either in **MANDAN** or in **SILBERSCHATZ** or in the knowledge generally available to one of ordinary skill in the art, to modify or to combine the teachings of **MANDAN** and **SILBERSCHATZ**. Second, there must be a reasonable expectation of success. Finally, **MANDAN** and **SILBERSCHATZ,** when combined, must teach or suggest all the claim limitations of the instant application. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in **MANDAN** and **SILBERSCHATZ**, and not be based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

MANDAN "fails to teach a GROUP BY clause enumerating again said enumerated table field or fields of the basis table that have not been identified as having aggregation functions to be performed" as indicated by the Examiner in the above-identified Office Action. However, Applicant respectfully disagrees with the assertion in the above-identified Office Action that the limitations as recited in claims 5 and 24 are suggested in **SILBERSCHATZ**.

More specifically, **SILBERSCHATZ** teaches in pertinate part:

> There are circumstances where we would like to apply the
> aggregate function not only to a single set of tuples, but
> also to a group of sets of tuples; we specify this wish in
> SQL using the **group by** clause. The attribute or attributes
> given in the **group by** clause are used to form groups.
> Tuples with the same value on all attributes in the **group
> by** clause are placed in one group.

Applicant respectfully submits that the mere presence of a function in a database
language, or for that matter the presence of a definition of the function in a book describing
database system concepts, does not constitute the requisite suggestion or motivation to
modify or to combine the teachings of **MANDAN** and **SILBERSCHATZ** in a manner which
is not described in either **SILBERSCHATZ** or **MANDAN**. Specifically,
SILBERSCHATZ does not describe "a GROUP BY clause enumerating again …table fields
… of the basis table that have not been identified as having aggregation functions to be
performed" as recited in claims 5 and 24 of the instant application. Rather
SILBERSCHATZ merely describes the functionality of the GROUP BY clause in general
terms, without the specific application of "enumerating again …table fields … of the basis
table that have not been identified as having aggregation functions to be performed" as
recited in claims 5 and 24 of the instant application. **MANDAN** and **SILBERSCHATZ**
must provide the teaching or suggestion to make the claimed combination without using
hindsight that is based purely on the applicant's disclosure.

Clearly, the proposed combination of **MANDAN** and **SILBERSCHATZ** does not
teach or suggest "a GROUP BY clause enumerating again said enumerated table field or
fields of the basis table that have not been identified as having aggregation functions to be
performed" as recited in claims 5 and 24 of the instant application.

In view of the foregoing, the Examiner is requested to withdraw the rejections under
35 U.S.C. § 103 on page 12 of the above-identified Office Action and where appropriate
issue a Notice of Allowance.

ALLOWABLE SUBJECT MATTER

Finally, applicant appreciatively acknowledges the Examiner's statement that claims 6 and 25 "would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims." In light of the above, applicants respectfully believe that the rewriting of claims 6 and 25 is unnecessary at this time.

CONCLUSION

Accordingly, it is believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 1 or 20. Claims 1 and 20 are therefore believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on either claim 1 or claim 20.

As a result of the foregoing amendments, Applicant submits that all of the pending claims are in condition for allowance. Accordingly, a Notice of Allowance is respectfully requested. If the Examiner has any questions concerning the present paper, the Examiner is kindly requested to contact the undersigned at (206) 407-1509. If any fees are due in connection with this paper, the Commissioner is authorized to charge Deposit Account 500393.

Respectfully submitted,
SCHWABE, WILLIAMSON & WYATT, P.C.

Date: Monday, April 11, 2005

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